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ABSTRACT

A study was conducted to ascertain whether additional focus on test-taking strategies might significantly improve the passing rate of Miami-Dade Community College (MDCC) students on the College Level Academic Skills Test (CLAST). All students who took the summer and fall 1984 administrations of the CLAST were included in the study. Original passing rates were recalculated based on three test-taking strategies serving as possible alternatives to skipping test items. Study findings included the following: (1) students were most likely to skip items on the reading test, with Black students more likely than Whites or Hispanics to skip at least one item in all three test areas; (2) most students responded to all test items; (3) for all students taking the test, the number of items skipped averaged less than one; (4) both Whites and Blacks had a significantly higher mean number of skipped items in computation than Hispanics; and (5) the recalculation of passing rates to reflect instruction in test-taking skills showed that the reading passing rates would be affected by only a small amount; that the writing passing rate would have been affected only during the fall 1984 administration; and that the passing rate for computation would be affected least of all. Based on study findings, it was concluded that if efforts to improve students' test-taking strategies were initiated, activities should focus on the area of writing. (LAL)

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Miami-Dade Community College

IMPROVING CLAST SCORES THROUGH ATTENTION TO TEST TAKING STRATEGIES

Research Report No. 85-02

January 1985

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Improving CLAST Scores Through Attention To Test Taking Strategies

A test score is more than the measurement of knowledge and aptitude in a subject area. Also included in that final number is ability to take advantage of the characteristics of the testing situation. To the extent that students are able to do this, they are "testwise". Students who are testwise will, among other things, make judicious use of time by pacing themselves through the test, budgeting the amount of time spent on any item with which they are having difficulty. They will use clues inherent in the item as well as reasoning and knowledge of the subject matter in guessing which of several responses may be correct for those items in which they are unsure of the answer.

Anything that changes one student's score in relation to another that does not involve knowledge of the subject matter is considered error by most test makers. Therefore, most standardized tests contain instructions on guessing behavior on items on the test. On some tests such as the SAT, penalties are introduced for guessing. In other cases, of which the College-Level Academic Skills Test (CLAST) is a major example, students are encouraged to guess to equalize guessing in this fashion.

Despite encouragement to answer all items, previous research on the CLAST (Belcher, Research Report 84-19) had shown that M-DCC students were not answering all items on the test. This behavior indicates a lack of testwiseness since students who skip one or more items are lowering their possibility of passing that section of the CLAST. In addition, the more students who engage in this behavior, the lower the passing rate for the institution.

The purpose of the current study, therefore, was to ascertain whether additional focus on test-taking strategies might significantly improve the passing rate. All students who took the Summer and Fall 1984 administrations of the CLAST were included. Assuming that improvement in test-taking strategies might involve anything from directing students to fill in all items that they had not completed when the time on the test ran out to more elaborate workshops on identifying weaknesses in test-taking strategies and improving them, three possible outcomes were developed:

> Outcome 1: Students, due to poor reading skills or spending too much time on individual items, suddenly find that time is up and they have not completed the test. Therefore, they randomly complete all blank items. Since there are four choices for an item, they will theoretically have one correct for every four items completed in this fashion. (Ratio 1:4)
>
> Outcome 2: Students realize that time will soon be up on the test. Though little time remains they are still able to read through each remaining item they had previously skipped and delete one alternative for each answer. As a result, the students will be correct once for every three items completed in this fashion. (Ratio 1:3)
>
> Outcome 3: Students again realize that testing time is almost through. In this case, however, due to additional knowledge and test taking strategies, the student is able to eliminate two responses. Therefore, the student has a 50% chance of being correct on each item. (Ratio 1:2)

The original passing rate was recalculated based on the above three outcomes and changes were noted. The same procedure was repeated for each of the three major ethnic groups.

As shown by Table 1, the test on which students were most likely to skip items was the Reading test. Black non-Hispanic students were more likely than either whites or Hispanics to skip at least one item in all three of the areas. However, most students did respond to all items, so

only a small group of students was not "testwise," at least as defined by skipping one or more items.

Table 1

Proportion Responding to All Test Items
For Three Major Ethnic Groups

	Ethnic Groups					
	Black Non-Hispanic		White Non-Hispanic		Hispanic	
	N	%	N	%	N	%
Reading						
Summer 1984	183	77	380	89	832	87
Fall 1984	148	81	324	93	633	90
Writing						
Summer 1984	183	91	382	96	831	97
Fall 1984	127	91	322	97	595	98
Computation						
Summer 1984	180	77	381	90	820	88
Fall 1984	125	77	315	92	581	90

For all students taking the test, the number of items skipped averaged less than one (see Table 2). Though the means were very small, statistical significance was found for several comparisons. For the Summer 1984 administration, black non-Hispanic students had a significantly higher mean number of skips in Reading than either white non-Hispanic or Hispanic students. White non-Hispanic students had a higher mean than Hispanics in writing. Both whites and blacks had a significantly higher mean number of

skips in Computation than Hispanics. For the Fall 1984 administration, black non-Hispanic students had a significantly higher number of skips than white or Hispanic students in Reading, while the other two areas were not statistically significant.

Table 2

Average Number of Items Skipped
by Ethnic Group

	Terms			
	Summer 1984		Fall 1984	
Ethnic Group	Mean	Number	Mean	Number
Reading				
Black Non-Hispanic	1.41	183	.83	148
White Non-Hispanic	.54	380	.17	324
Hispanic	.62	832	.39	633
Total	.74	1,395	.44	1,105
Writing				
Black Non-Hispanic	.33	183	.48	127
White Non-Hispanic	.60	382	.02	322
Hispanic	.13	831	.19	595
Total	.16	1,396	.18	1,044
Computation				
Black Non-Hispanic	.98	180	.46	125
White Non-Hispanic	1.07	381	.14	315
Hispanic	.49	820	.27	581
Total	.53	1,381	.27	1,020

In Reading, including extra work in testing skills would raise the passing rate only small amounts. As shown by Table 3, the greatest increase would have been for the black non-Hispanic student on the Summer 1984 test. You may recall that scores on this test were particularly low compared to other administrations. As indicated by the pattern of item responses, black

students simply did not finish the reading portion of the test. Still, only a 5% increase in the passing rate is shown by the table given the most rosy scenario.

Table 3

Reading Passing Rates Under Four Conditions
Of Guessing on Skipped Items

			If Ratio of Correct Answers to Number of Items Skipped was:					
	Passed		1:4		1:3		1:2	
Ethnic Group	N	%	N	%	N	%	N	%
Summer 1984								
Black Non-Hispanic	69	38	73	40	75	41	78	43
White Non-Hispanic	325	86	329	87	330	87	332	87
Hispanic	569	68	578	70	584	70	586	70
Total	963	69	980	70	989	71	996	71
Fall 1984								
Black Non-Hispanic	111	75	113	76	114	77	116	78
White Non-Hispanic	314	97	315	97	315	97	315	97
Hispanic	581	92	583	92	583	92	587	93
Total	1,006	91	1,011	92	1,012	92	1,018	92

In Writing, improving test-taking skills increased the passing rate only for the Fall 1984 administration. As shown by Table 4, assuming that students would correctly answer one out of three skipped items, the passing rate for the total group would improve from 93 to 98%. Much of this improvement could be attributed to improved black student performance, which showed a 10% increase under this condition. By campus, most of the improvement in passing rate would have accrued to North campus which would have jumped from 87% to 96% passing under the 1:3 ratio.

Table 4

Writing Passing Rates Under Four Conditions
Of Guessing on Skipped Items

			If Ratio of Correct Answers to Number of Items Skipped was:					
	Passed		1:4		1:3		1:2	
Ethnic Group	N	%	N	%	N	%	N	%
Summer 1984								
Black Non-Hispanic	144	79	146	80	149	81	149	81
White Non-Hispanic	357	93	357	93	357	93	357	93
Hispanic	746	90	747	90	748	90	748	90
Total	1,247	89	1,250	90	1,254	90	1,254	90
Fall 1984								
Black Non-Hispanic	107	84	109	86	119	94	120	94
White Non-Hispanic	313	97	313	97	322	100	322	100
Hispanic	551	93	554	93	581	98	582	98
Total	971	93	976	93	1,022	98	1,024	98

Table 5

Computation Passing Rates Under Four Conditions
Of Guessing on Skipped Items

			If Ratio of Correct Answers to Number of Items Skipped was:					
	Passed		1:4		1:3		1:2	
Ethnic Group	N	%	N	%	N	%	N	%
Summer 1984								
Black Non-Hispanic	132	73	133	74	134	74	134	74
White Non-Hispanic	351	92	353	93	353	93	355	93
Hispanic	749	91	754	92	754	92	754	92
Total	1,232	89	1,240	90	1,241	90	1,243	90
Fall 1984								
Black Non-Hispanic	114	91	114	91	115	92	115	92
White Non-Hispanic	314	100	314	100	314	100	314	100
Hispanic	568	98	568	98	568	98	570	98
Total	996	98	996	98	997	98	999	98

Spending time on test taking strategies in the area of Computation would be of least value. As shown by Table 5, even if students had a 50% chance of correctly guessing any of the items that they skipped, improvement in the passing rate would be 1% at best.

Discussion

Several conclusions can be drawn based on these results. One is that while the black non-Hispanic student is more likely to skip one or more items on the CLAST thereby exhibiting less "testwise" behavior, changing this behavior would not improve performance in most cases.

This conclusion is based on the assumption that lack of testwiseness is demonstrated first and foremost by skipping items. A study by Maspons and Llabre (1985) began with the assumption that Hispanic students were unfamiliar with the multiple-choice format. They found that a group of Miami-Dade Hispanic students trained in some testtaking strategies answered one more item correctly on the CGP computation test on the average than their untrained counterparts. In addition, the prediction of their performance in the classroom was improved by the training.

These findings, however, do not transfer directly to the current study. One difference is that students who are taking the CLAST have survived at Miami-Dade for several years and have most likely taken a number of multiple-choice tests. They are therefore a much more select group than the students who took the CGP upon entry. Even if the two groups included in this study and Maspons and Llabre's study were similar, an improvement in the scores by only one item is unlikely to change the passing rate on CLAST to any great extent.

It is concluded, therefore, that if efforts to improve students' test-taking strategies were initiated, activities should focus on the area of writing, and the workshop should first be held on North Campus where the passing rate is most likely to change. With this exception, however, the

expenditure of much beyond minimal amounts of dollars and time would produce little in the way of desired results.

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